Energy and Environmental Policy
Innovation in a Bottom-Up World

We are a policy innovation lab based at the University of Colorado, Boulder. We work with partners around the world to develop and support real-time policy experiments, establish robust networks for learning and exchange, and contribute to effective and durable policy outcomes.
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OVERVIEW

We created the Laboratory for Energy & Environmental Policy innovation (LEEP) two years ago to provide a platform for our applied work around the world. LEEP is motivated by the conviction that we are in a bottom-up world when it comes to energy and environmental policy innovation and that subnational governments (states, provinces, districts, counties, municipalities, and villages) must play a critical role in creating lasting solutions to the challenges of climate change, clean energy, and environmental sustainability.

We focus on three main activities: (1) real-time policy experimentation; (2) education and exchange; and (3) analysis, support, and knowledge management. Each of our projects combines these activities in various ways. In all of our efforts, we seek to work across scales.

Over the last two years, we have launched two satellite labs, created seven new initiatives, strengthened and expanded our three main existing projects, secured an additional $7,640,531 in grants (through 2022), and submitted grant applications for an additional $2,325,440.

We believe that creative approaches to solving problems come from networks. Put simply, more connections and collaborations generate more ideas and learning. We are also convinced that universities can and should play a vital role in developing and nurturing these networks. We have connected researchers across the University of Colorado (CU) and other local institutions with our partners and colleagues in Brazil, Bolivia, Peru, Mexico, and Indonesia. Fifteen current CU faculty members from five different schools and departments are LEEP affiliates and/or are actively working on our projects. We have also launched a monthly speaker series, a fellowship program, and an undergraduate and graduate intern program. In addition, LEEP is forging new collaborations and partnerships with the Emmett Institute on Climate Change and the Environment at UCLA Law as well as UCLA’s campus-wide Institute of Environment and Sustainability to support this work. Our goal is to continue to make LEEP a vibrant hub for applied work, teaching, and research on energy and environmental policy innovation across the CU campus and beyond.

LEEP supports subnational climate action by creating networks and relationships across policy domains and scales, building integrated, interdisciplinary teams to solve problems. The lab draws upon CU’s considerable resources and expertise in climate, energy, environment, and development to assist subnational governments and their partners in planning and implementing energy and environmental policy experiments and interventions. We have been doing this in real-time with our Governors’ Climate & Forests Task Force (GCF Task Force) project over the last ten years, and we view LEEP as an effort to expand and elaborate upon the lessons we have learned from that experience.

Building upon the GCF Task Force experience, over the last two years we have developed formal partnerships with 18 different institutions and organizations around the world to connect CU’s remarkable capabilities in climate, energy, and environment with governments and their civil society and academic partners around the world. LEEP works in cities, such as El Alto, Bolivia and Los Angeles. We work in regions, such as the biodiversity hotspot of Southern Bahia, Brazil and the Peruvian Amazon. We work with states and provinces, such as Acre, Brazil, one of Brazil’s most socially and environmentally progressive states. And we work at the global scale: the GCF now includes 38 states and provinces in 10 countries.

This report describes our philosophy and overall approach at LEEP, highlights the key activities and projects we have been engaged in over the last two years, and provides a look ahead at where we want LEEP to go. Even though we are very young, we believe LEEP represents an innovative and durable approach to how universities can connect with policymakers and other stakeholders around the world.

We are very grateful for the support we have received from our donors and, especially, from CU.

We look forward to an exciting future working with all of our partners at CU and around the world.

Sincerely,

Dr. William Boyd, LEEP Founding Director
Dr. Colleen Scanlan Lyons, LEEP Co-Director
Beatriz Garcia, LEEP Co-Director
MISSION & STRATEGY

Our goal at LEEP is to develop and support real-time policy experiments, robust networks for learning and exchange, meaningful processes for stakeholder engagement, and durable policy outcomes.

We start from the premise that bottom-up approaches to climate, energy, and environmental problems must be the foundation for any lasting solutions. Much of the hard work and many of the most important policy experiments aimed at tackling these problems are taking place at subnational levels. The challenge is to connect, scale, and learn from these efforts.

Our theory of change holds that subnational governments (including states and provinces, counties and districts, cities and municipalities, and communities and villages) are critical actors in the effort to fight climate change, promote clean energy, and build durable frameworks for environmentally sustainable development. We believe that effective solutions to many of our energy and environmental problems must be public-private in character and that, in all cases, they must fit with and grow out of vernacular institutions. To that end, we focus on mobilizing and engaging political leaders, empowering civil servants, and connecting them with civil society partners in a manner that will advance integrated and equitable approaches to sustainable development.

We embrace a network approach to governance. We work to thicken the relationships between government, civil society, and the private sector in the regions where we work while also forging broader connections with ongoing policy initiatives and processes around the world. We work across scales, seeking to promote vertical and horizontal policy alignment. And we ground our work with ongoing policy experiments in a recursive approach to learning and knowledge management.

We believe that some of the most important policy experiments are happening in places far removed from national centers of business and government. We want to understand and support these experiments because we believe they hold important lessons for other similarly situated places. One of our goals is to establish a distributed platform of satellite labs in places that are already innovating – and that are often far removed from the metropolitan centers of political and economic power – and to connect these efforts to other sources of support and financing to reduce the risks of policy experimentation.

We recognize that we live in a world of fast policy – one in which policy ideas are often quickly disembedded from their original contexts and diffused around the world without any critical assessment of their effectiveness. We believe that this can sometimes constrain bottom-up policy innovation by promoting a model of policy adoption and diffusion that does not fit with vernacular institutions and local context. We seek to better understand the dynamics of fast policy, and we want to harness and tame it in ways that will promote better and more durable policy outcomes in real places.
REAL-TIME POLICY EXPERIMENTATION

The Governors’ Climate and Forests (GCF) Task Force, Protecting Forests, Reducing Emissions, and Enhancing Livelihoods Through Subnational Policy Innovation and Action:

The Governors’ Climate and Forests (GCF) Task Force serves as LEEP’s “anchor” project and most well-developed example of our work in real-time policy experimentation. Established in 2009, the GCF Task Force is a unique subnational collaboration that has grown to 38 states and provinces from ten countries (Brazil, Colombia, Ecuador, Indonesia, Ivory Coast, Mexico, Nigeria, Peru, Spain, and the United States) and works to promote jurisdictional approaches to reduced deforestation and low emissions development. More than one-third of the world’s tropical forests are in GCF member states and provinces, including all of the legal Amazon in Brazil, the vast majority of the Peruvian Amazon, and more than 60% of Indonesia’s forests. The GCF Task Force includes tropical states and provinces that are leading the way in building robust jurisdictional programs to protect forests and climate while enhancing rural livelihoods, as well as the only jurisdiction in the world (California) that is considering provisions that would recognize emissions reductions from jurisdictional programs that reduce deforestation as part of its mandatory cap-and-trade program.

Since 2009, we have secured $15,540,707 in grants for our GCF work (through 2020). The current annual budget for the GCF project is approximately $1.3 million with the majority of these funds going to support activities in GCF member states and provinces as they engage in policy experimentation for tropical forest conservation and low emissions development.

Over the last year, we also launched a new partnership with the United Nations Development Program (UNDP) REDD+ team based in Geneva, Switzerland. This new partnership will manage a pledge of 200M NOK (approximately USD $25 million) from the Government...
of Norway to GCF Task Force members to support their efforts to achieve the Rio Branco Declaration target of reducing deforestation by 80% by 2020. We also began two GCF-wide working groups to strengthen governmental partnerships with indigenous peoples and local communities and with supply chain companies working in tropical forest jurisdictions.

The GCF Task Force network of Governors and civil servants has served as a platform for launching several other LEEP activities, as described below in the evolving collaboration with the government and Federal University of Acre, Brazil and the Partnerships for International Research and Education (PIRE) project in Peru and Colombia on artisanal mining. In September 2018, the GCF Task Force will celebrate its tenth anniversary at its Annual Meeting in San Francisco. This meeting will be co-hosted by GCF Task Force founding member California and the three states of Mexico’s Yucatan peninsula and will be held in conjunction with the California Global Climate Action Summit, which promises to be one of the year’s most important climate events.

Clean Energy for El Alto, Bolivia:

Over the last two years, LEEP has established a new satellite lab and ongoing policy experiment in El Alto, Bolivia, one of Latin America’s fastest growing cities. Located in a subtropical highland environment over 13,000 feet above sea level, El Alto has a population of 1,000,000 (85% indigenous and over 70% of its working population belongs to Bolivia’s “informal economy”). The city also enjoys 2,289 hours of sunshine per year, making it an ideal site for developing innovative, affordable, and sustainable energy options that largely focus on solar power. During 2017 and 2018, LEEP provided $25,000 of seed funding to support a feasibility study, establish a satellite lab, and launch the Clean Energy for El Alto project. This investment resulted in the active participation of the Mayor of El Alto in the project, the signing of a Memorandum of Understanding with the municipality, and the design of ten potential pilot projects by Bolivia’s foremost climate expert. One of these pilot projects will be implemented in mid-2018, with an initial $6,000 (renewable annually) contributed by the Bolivian-based Banco Bisa. Additional funding of $250,000 has been targeted for 2018-2019.

Sustainable Mining Strategy Development for Peru:

Complementing one of LEEP’s research areas (detailed below), Peru’s new Minister of the Environment and Minister of Energy and Mines have invited LEEP and its associates to help the ministries design more sustainable development strategies for mining, Peru’s leading industry. At a meeting in Lima in May 2018, both ministers committed to hold a workshop with CU in Fall 2018 to bring civil servants from Peru, Colombia and Brazil together with Peruvian miners for training and information exchange on how environmental governance strategies and monitoring could make the artisanal mining industry in Peru more sustainable. The ministers want to develop a formal Memorandum of Understanding between CU, Colorado School of Mines, and Peru’s Environmental Ministry and Ministry of Energy and Mines for ongoing trainings with governmental officials and miners. The ministries of Environment and of Energy and Mines are working together to develop their three-year strategy for Peru and emphasized that they could greatly benefit from expertise at CU and Mines to improve the sustainability of their mining strategies.
“Be Boulder, Be Acre” - Knowledge, Networks, and Problem-Solving from the Amazon to the World:

In 2017 LEEP launched the CU-Acre Collaboration called “Be Boulder, Be Acre,” which is a partnership between professors, researchers, and administrators at CU, governmental officials from the state of Acre, Brazil (including Governor Tião Viana), and professors and administrators from the Federal University of Acre (UFAC). This partnership was built through a series of exchanges and related efforts between LEEP and Acre which began in January 2017 when the governor of Acre brought a high-level delegation to CU. The delegation met with deans and professors, consulted with business leaders in sustainable food production, and established relationships with CU’s International English Center, the National Center for Atmospheric Research (NCAR), and the National Renewable Energy Laboratory (NREL). Governor Viana also gave a public lecture at CU Law and presentations for ENVS classes. CU signed a formal MOU for international cooperation with the government of Acre and UFAC.

This initial visit has led to other exchanges involving both teaching and research. LEEP fellow Dr. Peter Newton obtained a CU Seed grant to support applied research on sustainable livelihood development in Acre (further described below). Three courses are currently being developed around Acre’s innovative environmental governance model: two short courses will be taught by Colorado Law professors during Summer and Fall 2018, with one focusing on mediation and dispute resolution, and one on indigenous and human rights. Also, a new course on innovative sustainable development and governance strategies for forest ecosystems will be taught in May 2019 by LEEP, ENVS, Engineering, and Law professors as well as their counterparts in Acre. All three of these courses represent a new model of collaborative, interdisciplinary, and transboundary education.

Summer and Fall 2018, with one focusing on mediation and dispute resolution, and one on indigenous and human rights. Also, a new course on innovative sustainable development and governance strategies for forest ecosystems will be taught in May 2019 by LEEP, ENVS, Engineering, and Law professors as well as their counterparts in Acre. All three of these courses represent a new model of collaborative, interdisciplinary, and transboundary education.

LEEP promotes learning that transcends cultural, geographical, and disciplinary boundaries. Our home base at CU allows us to draw from expertise across academic departments, while our global reach allows us to learn from and collaborate with colleagues and practitioners around the world. LEEP is committed to bringing people together to make sure that learning gets translated back into action. Each of our major projects will have a bi-directional education and exchange component whereby LEEP staff and CU researchers will be embedded in activities on the ground while local researchers and policy entrepreneurs from our projects will come and spend time at CU.

The State of Acre, Brazil has over 85% of its forests intact and a long history of integrating the protection of forests into its economic development policy.

Region of Southern Bahia

State of Acre

Brazil
To further support these courses, as well as the broader “Be Boulder, Be Acre” agenda, CU’s International English Center (IEC) has developed a 100-hour online English education course for Acre’s civil servants. The IEC is also working with the U.S. State Department to set up a language center for long-term learning and exchange assistance in Acre.

Another outcome from “Be Boulder, Be Acre” is a budding collaboration with LEEP and the Boulder-based national laboratories for applied research and problem-solving approaches. Dr. Casper Ammann from NCAR visited the government of Acre to develop a plan for hydrologic modeling and forecasting and integrated weather and climate services. Over time, we plan to develop this project through an initial needs assessment to identify key vulnerabilities across the socio-economic spectrum, a plan for scientific and technical collaboration (data integration, predictive modeling) and capacity building activities (joint course development for workforce training), and, ultimately, the creation of translational products to inform the different stakeholders and public in Acre.

Going forward, Acre will continue to serve as one of LEEP’s satellite labs to further support educational exchange and research with dedicated space now provided by the government of Acre. In 2019, a LEEP fellow with extensive experience in Acre and the broader Amazon plans to join CU’s Center for the Study of Origins (CSO) as a Visiting Scholar. Above all, LEEP’s presence in Acre (born originally from the GCF) has served as a catalyst for important new collaborations. At a recent course development meeting in May 2018, both governmental and UFAC leaders noted that CU’s presence was instrumental to their working together, breaking down traditional silos between academic and applied work and establishing a new model for university-governmental partnerships.

“Be Boulder, Be Bahia”: Social-Environmental Governance and Development Innovations for Tropical Forests:

LEEP has also reinvigorated an existing CU partnership in Southern Bahia, Brazil with the State University of Santa Cruz (UESC) and prominent non-governmental organizations (NGOs) working on tropical forest conservation and sustainable community development. CU established an MOU with UESC in 2013 and a LEEP Co-Director led courses in Bahia from 2010-2015. In 2017 and 2018, LEEP Directors visited with civil society leaders in the region and UESC professors in the Ecology and Environmental Studies Departments. These meetings revealed interesting synergies with the aforementioned “Be Boulder, Be Acre” initiative; professors and civil servants from Acre felt they could learn much from Bahia’s work on agroforestry and non-timber forest product development, and UESC professors noted their need to learn from Acre’s state-led environmental services governance system. To respond to this, LEEP and ENVS will sponsor a one-week course (part two of the Acre sustainable development course described above) in Bahia in May 2019. This course will connect education and exchange from the Amazon to the Atlantic Forest in Brazil.

Complementing this work with UESC, one of Southern Bahia’s most prominent NGO leaders, a professor at UESC, will visit CU in June 2018 to solidify plans to conduct part of his dissertation work at CU while housed at LEEP. A UESC graduate student conducting research on ecovillages also plans to come to LEEP in Fall 2018-Spring 2019.

As with Acre, LEEP will launch a satellite lab in Southern Bahia in the coming year to leverage important cross-institutional relationships in the region with UESC as well as with partner U.S. institutions that are working in the region, namely Brown and Yale universities.
ANALYSIS, SUPPORT, AND KNOWLEDGE MANAGEMENT

Getting to 100% Renewable Energy in Los Angeles:

This ongoing project, funded by UCLA’s Grand Challenge initiative, investigates and compares LA Department of Water and Power (LADWP) and Southern California Edison (SCE), with specific attention to their ongoing efforts to dramatically reduce the greenhouse gas emissions associated with the electricity they provide and to achieve Los Angeles’s goal of 100% renewable energy by 2050. We are focusing on the efforts of these two utilities in four major areas: (1) utility-scale renewables and grid energy storage; (2) distributed energy resources; (3) grid modernization; and (4) time-variant rates. Our working hypothesis—consistent with other work that we have done—is that examining the structure of different systems of electricity regulation (in this case city-regulated municipal utilities versus public utilities commission-regulated investor-owned utilities) can lead to interesting insights about the relative strengths and weaknesses of these different models of utility governance and the challenges and opportunities presented by each in the ongoing effort to decarbonize the grid.

Deep Decarbonization Pathways Planning efforts in GCF states and provinces:

With support from the Rockefeller Brothers Fund, the GCF Task Force is partnering with The Climate Group to support expansion of the California-led Under2 Coalition and begin implementing commitments under the Under2 MOU. Deep decarbonization plans fill a gap in existing climate policy by developing strategies for long-term (2050 and beyond) transformational change across all economic sectors. Prominent researchers have identified long-term, deep decarbonization planning as a critical complement to near-term climate change and investment strategies, which GCF Task Force members are developing through the Norwegian pledge noted above. The GCF has completed deep decarbonization trainings in Peru, Indonesia, and Brazil and will soon begin initial modeling efforts in select states and provinces that will directly inform the real-time policy experiments taking place across the GCF. The GCF is also exploring opportunities for collaboration in this area with the National Renewable Energy Laboratory Low Emissions Development Strategies Global Partnership.

Tracking Jurisdictional Efforts to Reduce Tropical Deforestation:

The GCF Task Force developed and annually updates a GCF Task Force Knowledge Database, which publishes information on jurisdictional programs to reduce deforestation in the GCF Task Force’s thirty-five tropical forest states and provinces. The database includes information on: deforestation trends; zoning and spatial planning; partnerships to address drivers of deforestation; advances in forest monitoring; engagement with Indigenous Peoples and Local Communities; and legal, policy, and institutional frameworks. In addition, the GCF has an online Support Network tool that maps the institutions and partnerships making jurisdictional programs work on the ground. Also under development is a civil servant tracking tool to profile and evaluate career civil servants who are key to the continuity of the GCF’s work.

LEEP supports all of its ongoing projects with research and analysis. Working with our partners at CU and around the world, we bring lawyers and policy analysts together with natural and social scientists to develop truly interdisciplinary approaches to problem solving. Each of our projects is approached not simply as an intervention in the world, but also as an experiment that offers important opportunities for learning and innovation. Dedicated research teams and knowledge management programs will be developed for each project to harness lessons and provide analysis on an ongoing basis. In everything we do, we seek to understand and translate the practical skills and tacit knowledge that government officials, civil society leaders, local communities, and business people use in their everyday approaches to problem solving. We believe in this respect that effective policy innovation must rest on a deep commitment to local ownership, bottom-up mobilization, and citizen engagement.
Sustainable Artisanal Mining Systems in Latin America:

LEEP is the CU lead on a five-year grant from the National Science Foundation's Partnerships for International Research and Education (PIRE) grant program “Promoting Healthy Communities and Sustainable Gold Supply Chains through Socially Responsible Engineering: Integrating Engineering and Local Knowledge to Design, Implement and Evaluate Sustainable Artisanal Mining Systems in Latin America.”

The project focuses on the fact that artisanal and small-scale gold mining (ASGM) is one of the largest contributors to deforestation and atmospheric mercury pollution in the world. Additionally, ASGM results in widespread land, sediment, water, and air quality deterioration, which impacts rural and indigenous communities. Furthermore, most current interventions treat technology as a panacea for solving ASGM’s many problems. These interventions do not consider the socio-economic and ecological context of why and how people choose to mine, nor do they integrate the knowledge miners and communities already possess about hazards and mitigation strategies and their own desires for sustainable livelihoods into proposed solutions. This PIRE project breaks new ground by developing an integrated, community-centered approach to discovering how the social, environmental, and technical dimensions of ASGM production systems influence one another, in order to ultimately design, implement, evaluate, and ensure the long-term sustainability of ASGM practices and technologies.

Also, for the first time, US researchers and engineering students will work with Colombian and Peruvian faculty, students, miners, and communities to develop socio-technical innovations (i.e., ensembles of people, organizations, and technologies that develop, nurture, and constantly improve methods and practices for cleaner, safer, more economically beneficial, and more sustainable ASGM). Colorado School of Mines’ Humanitarian Engineering Program serves as the lead institution, and at CU, LEEP is partnering with the Environmental Studies Program (ENVS) and Institute of Behavioral Science (IBS). This grant is supporting a PhD student in ENVS for three years and is strengthening CU’s connection with Mines as well as with the other project partners—the U.S. Air Force Academy, two universities in Peru (Pontificia Universidad Catolica de Peru and University of Technology and Engineering), and two in Colombia (Universidad Nacional de Colombia and Corporación Universitaria Minuto de Dios).

Livelihoods, Deforestation, and Subnational Governance in the Amazon:

LEEP and ENVS are working together on a Seed Grant, “Reducing Deforestation and Improving Livelihoods through Innovative Subnational Governance: Learning Lessons from the State of Acre, Brazil,” which supports CU’s Grand Challenge Initiative. As noted above, Acre is a laboratory for the development of best practices to reconcile environmental and development goals, and we have much to learn from the state’s innovative subnational governance policies and programs that work to conserve tropical forests and promote low emissions development (LED). While a number of subnational forest governance interventions have been implemented in tropical forest countries under the umbrella of LED, the relative effectiveness of different interventions remains inadequately understood. This project seeks to better understand the environmental and socio-economic costs and benefits of subnational LED forest governance interventions on forests and forest-dependent people. It explores the impacts of subnational LED forest interventions on forest cover and livelihoods as well as the institutional, environmental, social, and economic opportunities and barriers to scaling up subnational LED forest interventions and achieving impact.
LEEP was founded on the view that creative thinking about hard problems requires careful, deliberate structuring of interactions and collaborations in order to generate new ideas, concepts, and approaches. We have tried to embed this in our overall approach and, specifically, in our work space at Sustainability, Energy & Environment Complex (SEEC) and in our satellite labs. In a short time, LEEP has become a vibrant, public space in CU’s SEEC. We house a monthly lecture series, spaces for undergraduate and graduate students, interns, and fellows of the lab, and the Secretariat of LEEP’s largest project, the GCF Task Force. The LEEP space in SEEC was deliberately designed to promote “idea work” with various space configurations that enable people to come together to think and work collaboratively on projects, all of which reflects SEEC’s mission to facilitate collaborative, interdisciplinary approaches to energy and environmental problem solving. The LEEP space allows for rich interactions with partners at SEEC such as RASEI, the Environmental Studies Program, the Center for the Study of Origins, and other like-minded groups doing complementary work.

LEEP’s extensive network in tropical forest regions also provides a platform for two additional research projects on the Amazon region: “Amazonian Governance to Enable Transformations to Sustainability” (AGENTs) and the “Coupled Forest-Human Health Dynamics and Policy Responses in Tropical Forest Frontiers” projects. AGENTS recently received funding from the Belmont Forum and is being led by the University of Indiana as well as IBS and the Center for the Governance of Natural Resources at CU. This project explores how biodiversity conservation in the Amazon Basin can be scientifically sound as well as practical, participatory, and affordable. An experienced research team of academic institutions from the US, Sweden, Brazil, and the Netherlands will work with multiple partners in the Amazon to explore the role of local institutions and individual and collective action in promoting sustainable resource use and integrated landscape governance. This project will produce modeling tools that can be used by decision-makers in Acre’s government for environmental policy development.

LEEP is also partnering with CU’s Center for the Governance of Natural Resources and IBS on a proposal to the National Science Foundation’s Coupled Human and Natural Systems project called “Coupled Forest-Human Health Dynamics and Policy Responses in Tropical Forest Frontiers,” which brings together a cross-institutional and interdisciplinary group of scholars in Public Policy, Forest Ecology, Health Demography, Physical Geography, Epidemiology, Environmental Science, Anthropology, and Behavioral Economics. This project will explore the relationship between deforestation and public health by focusing on forest succession and malaria-transmitting mosquitoes, the costs and benefits to human health associated with tropical forest loss and regrowth, and whether an improved understanding of the coupled dynamics between human health and tropical forests increases policy actors’ support of forest conservation initiatives. One goal of the project, which also aligns with LEEP’s real-time policy experimentation work, is to use this knowledge to inform new policy initiatives that improve the health of both forests and humans. A decision on this proposal is expected in July 2018.

LEEP also serves as an international hub at CU, and we regularly include professors and students from across CU as well as practitioners from the broader community in the lab’s activities. Several times a year, LEEP brings together high-level representatives of the Government of Norway, the United Nations Development Programme’s REDD+ team, governors, secretaries of the environment, and civil servants from tropical forest states and provinces around the globe, international academics, and nongovernmental organization leaders. As the location of the GCF Secretariat, the LEEP also hosts the GCF’s annual Executive Committee meeting for members and staff from the GCF’s global network that includes Indonesia, Brazil, Mexico, Peru, and the United States. We look forward to new collaborations in the coming years.

IDEA WORK AT LEEP
SELECT PUBLICATIONS, PRESENTATIONS AND REPORTS 2016-2018

LEEP serves as a vehicle for knowledge generation on energy and environmental policy innovation. Our publications, presentations, and reports bring together pedagogical and practical lessons from LEEP’s three activity areas.


PEOPLE & PARTNERS

LEEP is supported by a core team in the Sustainable Energy and Environmental Complex (SEEC) as well as by LEEP affiliates across CU, in the broader Boulder and Colorado communities, and in LEEP regions around the world.

CORE TEAM

Dr. William Boyd | LEEP Director; GCF Task Force Project Lead; Professor of Law, Colorado Law; Fellow, Renewable and Sustainable Energy Institute (RASEI)
Dr. Colleen Scanlan Lyons | LEEP Co-Director; GCF Task Force Project Director; Research Associate - Environment & Society Program, Institute of Behavioral Science
Beatriz Garcia | LEEP Co-Director; El Alto Solar Project Director
Geeta Uhl | GCF Task Force Assistant Director
Luke Pritchard | GCF Task Force Senior Program Officer
Michelle Siqueira | GCF Task Force Events and Outreach Lead
Bryan Weigle | Project Administrator

LEEP AFFILIATES

Kristen Carpenter | Council Tree Professor of Law, Colorado Law
Dr. Peter Newton | Assistant Professor in Environmental Studies Program
Dr. Joel Hartter | Associate Professor in Environmental Studies Program and Associate Director for Professional Education (MENV)
Dr. Krister Andersson | Professor of Political Science and Director of the Center for the Governance of Natural Resources
Dr. Bernard Amadei | Distinguished Professor and Professor of Civil Engineering, CU
Dr. Caspar Ammann | Project Scientist, National Center for Atmospheric Research (NCAR)
Scott Gwozd | LEEP Fellow, LEEDS School of Business
Dr. Don Grant | Professor of Sociology, Director of Social Innovation Program, and Director of Care, Health and Resilience Program

INSTITUTIONAL PARTNERS AT CU

Colorado Law
Civil, Environmental, and Architectural Engineering
Renewable & Sustainable Energy Institute
Sustainability, Energy & Environment Complex
Environmental Studies Department and Masters in Environmental Studies
Center for the Study of Origins
Getches Wilkinson Center for Natural Resources, Energy, and the Environment
Department of Engineering
Institute of Behavioral Sciences
Center for the Governance of Natural Resources

LEEP FELLOWS, GRADUATE STUDENTS, AND INTERNS

Dr. Nicole Smith | Assistant Professor, Mining Engineering, Colorado School of Mines
Rui Rocha | LEEP Fellow, State University of Santa Cruz (UESC)
João Tezza | LEEP Fellow, National Institute of Research in the Amazon (INPA)
Rayna Benzeev | LEEP and ENVS graduate student working in Acre and Bahia, Brazil
Caitlin Cassis | LEEP and ENVS graduate student working with PIRE project in Peru and Colombia
Ricardo Simmons | LEEP Fellow
Micaela Navarro | LEEP intern

INSTITUTIONAL PARTNERS & FUNDERS BEYOND CU

Climate and Land Use Alliance
Colorado School of Mines
Climate, Community & Biodiversity Alliance
Corporación Universitaria Minuto de Dios (UNIMINUTO)
Earth Innovation Institute
Environmental Defense Fund
Federal University of Acre, Brazil (UFAC)
Forest Trends
Global Greengrants Fund
Gordon & Betty Moore Foundation
International English Center
National Center for Atmospheric Research (NCAR)
National Renewable Energy Laboratory (NREL)
Norwegian Agency for Development Cooperation (Norad)
Norwegian International Climate & Forest Initiative (NICFI)
Pontifícia Universidad Catolica de Peru (PUCP)
RTC Impact Fund
Renewable and Sustainable Energy Institute
Rockefeller Brothers Fund
State University of Santa Cruz, Brazil (UESC)
State of Acre, Brazil
Sustainability, Energy & Environment Community
The Climate Group
The Nature Conservancy
UCLA Institute of the Environment & Sustainability
UCLA School of Law - Emmett Institute on Climate Change and the Environment
UNDP REDD+ Team
Universidad Nacional de Colombia
University of Technology and Engineering (UTEC)
FUNDING

LEEP’s seed funding from CU in its first two years as a lab has been critical for sustaining a small core staff and several LEEP projects. CU’s support has also been leveraged to raise additional LEEP funds for its projects as noted below.

REAL-TIME POLICY EXPERIMENTATION
GOVERNORS’ CLIMATE & FORESTS TASK FORCE (GCF)
• $15,540,707 in grants from the Norwegian International Climate & Forest Initiative, Norwegian Agency for Development Cooperation, Packard, Moore, and ClimateWorks Foundations, the Climate and Land Use Alliance, and the Rockefeller Brothers Fund managed through the University of Colorado (2009-2020)
• $25 million pledge from Government of Norway to GCF States and Provinces (managed by UNDP REDD+ Team, Geneva)
• $2,325,440 in pending grant applications

CLEAN ENERGY FOR EL ALTO
• $25,000 investment
• $8,000 in-kind investment from Bolivian lead and consultant
• $6,000 investment from Bolivian based Banco-Bisa (annual commitment)
• $250,000 targeted for additional funding

EDUCATION AND EXCHANGE
“BE BOULDER, BE ACRE”
• $25,000 investment from LEEP
• $4,600 investment from Acre government
• $24,000 successful grant applications
• $25,000 - $50,000 targeted for additional course funding support from the Partners of the Americas program

ANALYSIS, SUPPORT, AND KNOWLEDGE MANAGEMENT
SUSTAINABLE LA GRAND CHALLENGE
• $200,000 grant received (managed through UCLA)
• $250,000 targeted for additional funding

SUSTAINABLE ARTISANAL MINING IN PERU AND COLOMBIA
• $284,973 NSF PIRE grant to CU for 2018-2022

LIVELIHOODS, DEFORESTATION, AND SUBNATIONAL GOVERNANCE IN THE AMAZON
• $43,848 CU SEED grant for 2017-2018

GOVERNANCE, DEFORESTATION AND HEALTH
• $1,400,000 pending proposal to NSF’s CNH program
LOOKING FORWARD

For the coming year (2018-19), LEEP will focus on the following priorities:

• Developing a LEEP Advisory Board, including representatives from key institutional partners, laboratory affiliates, and other collaborators to provide advice, guidance, and connections for program development and long-term financial support for LEEP.

• Developing formal partnership with the Emmett Institute for Climate Change and the Environment at UCLA School of Law and UCLA’s Institute of the Environment and Sustainability.

• Developing LEEP-Colorado Law Project on Climate Change, Land Use, Rights, and Livelihoods, working with Dean Jim Anaya and Professor Kristen Carpenter (head of Colorado Law’s Indian Law Program) and building on existing partnerships with state and provincial governments and indigenous peoples’ organizations to develop a formal research and exchange program to provide training and support to indigenous leaders and civil servants on climate change, land use, rights, and livelihoods.

• Expanding the LEEP Internship and Fellowship Programs beyond departments already associated with LEEP activities (Environmental Studies, Engineering, Law) and to also draw from other universities around the world.

• Expanding Fundraising to secure additional program and general funding support for LEEP.

• Improving Integration Across LEEP Activities by implementing more targeted research, education, and exchange components.

• Strengthening Satellite Labs in El Alto, Acre, and Bahia.

• Launching the interdisciplinary “Be Boulder, Be Acre, Be Bahia: Sustainable Development Innovation for Tropical Forest Ecosystems” course in May 2019 with professors from LEEP, CU Law, Engineering, and the Environmental Studies Program.

• Launching a joint discussion and reading series with the Center for the Studies of Origins (which adjoins LEEP’s space) to create additional collaborations across groups at SEEC.

In conclusion, we are happy, but hardly content, with LEEP’s progress over the last two years. We have achieved much of what we set out to do, and we are grateful for the support provided by our partners and CU Boulder in particular. Looking ahead, we are eager to grow and expand LEEP and to continue to connect our partners from around the world with the talent and resources here at CU Boulder. We believe our network, our experience, our commitment, and our overall approach will continue to position LEEP and CU Boulder on the cutting edge of energy and environmental policy innovation in a bottom-up world.